

Application Number 10/750,507
Response to Office Action mailed December 14, 2007

AMENDMENTS TO THE CLAIMS

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This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A method for dynamically initializing a view for a streaming database system, comprising:

accessing at least one stream of events in real time while the at least one stream of events is received as output from a streaming database system;

materializing, external to the streaming database system and as the at least one stream of events is received from the streaming database, a view from said stream, wherein said view is dynamically defined from said stream of events received from said streaming database system;

~~processing~~ producing, external to the streaming database system, a plurality of view snapshots from said materialized view, each view snapshot corresponding to a complete representation of an individual event within said stream materialized view; and

using said view snapshots to generate, external to the streaming database system, an initialized view that incorporates new events of said stream.

Claim 2 (Original): The method as recited in Claim 1 wherein said initialized view comprises a plurality of row data structures.

Claim 3 (Original): The method as recited in Claim 1, wherein said view is a stateful view resulting from a stateful stream, said stateful view having a bounded number of rows.

Claim 4 (Original): The method of Claim 3, wherein each of said view snapshots of said stateful view comprise a state of said stateful view including events existent at said materializing of said stateful view and events accessed after said materializing of said stateful view at a particular time.

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Claim 5 (Original): The method of Claim 2, wherein said view is a stateless view resulting from a stateless stream, said stateless view having an unbounded number of rows.

Claim 6 (Original): The method of Claim 5, wherein each of said view snapshots of said stateless view comprise a state of said stateless view including events existent at said materializing of said stateless view, including a last event processed during said materializing of said stateless view.

Claim 7 (Original): The method of Claim 1, further comprising:
processing a plurality of view snapshots by maintaining a sequence of a plurality of preceding current view snapshots.

Claim 8 (Original): The method of Claim 7, further comprising:
applying a batch set of events to said processing of said view snapshots, wherein each event of said batch set has a corresponding one of said view snapshots.

Claim 9 (Original): The method of Claim 1, wherein said generating of said initialized view is configured to accomplish a recovery of a view state.

Claim 10 (Original): The method of Claim 1, wherein said generating of said initialized view is configured to accomplish a re-enabling of a view after a disabling of a view.

Claim 11 (Original): The method of Claim 1, wherein said generating of said initialized view is configured to accomplish a load balancing of a view maintenance process.

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Claim 12 (Currently Amended): A system for dynamically initializing a view for a streaming database system, comprising:

a view engine for accessing a stream of events in real time as the stream of events is received from a streaming database system, said view engine being external to the streaming database system;

said view engine for materializing an initial view from said stream, wherein said initial view comprises a dynamically defined view of said stream of events received from said streaming database system;

said view engine configured for ~~processing~~ producing a plurality of recent view snapshots from said initial view, each recent view snapshot corresponding to a complete representation of an individual event within said ~~stream~~ initial view;

said view engine configured for using each of said recent view snapshots to generate a view state; and

said view engine further configured for maintaining an updated view in accordance with said view state, wherein said updated view incorporates new events of said stream.

Claim 13 (Previously Presented): The system of Claim 12, wherein said updated view comprises a plurality of row data structures.

Claim 14 (Previously Presented): The system of Claim 12, wherein said initial view is a stateful view resulting from a stateful stream, said stateful view having a bounded number of rows.

Claim 15 (Previously Presented): The system of Claim 14, wherein each of said view snapshots of said stateful view comprise a state of said initial view including events existent at said materializing of said initial view and events accessed after said materializing of said initial view at a particular time.

Claim 16 (Previously Presented): The system of Claim 13, wherein said initial view is a stateless view resulting from a stateless stream, said stateless view having an unbounded number of rows.

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Claim 17 (Previously Presented): The system of Claim 16, wherein each of said view snapshots of said stateless view comprise a state of said initial view including events existent at said materializing of said initial view, including a last event processed during said materializing of said initial view.

Claim 18 (Previously Presented): The system of Claim 12, wherein said view engine is further configured for processing a plurality of recent view snapshots by maintaining a sequence of a plurality of preceding current view snapshots.

Claim 19 (Previously Presented): The system of Claim 18, wherein said view engine is further configured for applying a batch set of events to said processing of said recent view snapshots, wherein said event of said batch set has a corresponding one of said recent view snapshots.

Claim 20 (Previously Presented): The system of Claim 12, wherein said initializing of said updated view is configured to accomplish a recovery of a view state.

Claim 21 (Previously Presented): The system of Claim 12, wherein said initializing of said updated view is configured to accomplish a re-enabling of a view after a disabling of a view.

Claim 22 (Previously Presented): The system of Claim 12, wherein said initializing of said updated view is configured to accomplish a load balancing of a view maintenance process.

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Claim 23 (Currently Amended): In a computer system for monitoring business activity, a computer usable medium having a computer readable program code embodied therein for causing said computer system to perform a method for dynamically initializing a view for a streaming database system, said method comprising:

accessing at least one stream of events in real time as the at least one stream of events is received as output from a streaming database system;

materializing, external to the streaming database system and as the at least one stream of events is received from the streaming database, a view from said stream, wherein said view is dynamically defined from said stream of events captured from said streaming database system;

processing producing, external to the streaming database system, a plurality of view snapshots from said materialized view, each view snapshot corresponding to a complete representation of an individual event within said ~~stream~~ materialized view; and

using said view snapshots to generate, external to the streaming database system, an initialized view that incorporates new events of said stream.

Claim 24 (Previously Presented): The computer usable medium of Claim 23, wherein said initialized view is a re-initialization of a previously initialized view.

Claim 25 (Previously Presented): The computer usable medium of Claim 23, wherein said view is a stateful view resulting from a stateful stream, said stateful view having a bounded number of rows.

Claim 26 (Previously Presented): The computer usable medium of Claim 25, wherein each of said view snapshots of said stateful view comprise a state of said stateful view including events existent at said materializing of said stateful view and events accessed after said materializing of said stateful view at a particular time.

Claim 27 (Previously Presented): The computer usable medium of Claim 23, wherein said view is a stateless view resulting from a stateless stream, said stateless view having an unbounded number of rows.

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Claim 28 (Previously Presented): The computer usable medium of Claim 27, wherein each of said view snapshots of said stateless view comprise a state of said stateless view including events existent at said materializing of said stateless view, including a last event processed during said materializing of said stateless view.

Claim 29 (Previously Presented): The computer usable medium of Claim 23, further comprising:
processing a plurality of view snapshots by maintaining a sequence of a plurality of preceding current view snapshots.

Claim 30 (Previously Presented): The computer usable medium of Claim 29, further comprising:
applying a batch set of events to said processing of said view snapshots, wherein each event of said batch set has a corresponding one of said view snapshots.

Claim 31 (Previously Presented): The computer usable medium of Claim 23, wherein said generating of said initialized view is configured to accomplish a recovery of a view state.

Claim 32 (Previously Presented): The computer usable medium of Claim 23, wherein said generating of said initialized view is configured to accomplish a re-enabling of a view after a disabling of a view.

Claim 33 (Previously Presented): The computer usable medium of Claim 23, wherein said generating of said initialized view is configured to accomplish a load balancing of a view maintenance process.

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Claim 34 (New): A method for dynamically initializing a view for a streaming database system, comprising:

accessing at least one stream of events in real time while the at least one stream of events is received as output from an external system;

materializing, as the at least one stream of events is received from the external system, a view from said stream, wherein said view is dynamically defined from said stream of events received from said external system;

producing a plurality of view snapshots from said materialized view, each view snapshot corresponding to a complete representation of an individual event within said materialized view; and

using said view snapshots to generate an initialized view that incorporates new events of said stream.

Claim 35 (New): In a computer system for monitoring business activity, a computer usable medium having a computer readable program code embodied therein for causing said computer system to perform a method for dynamically initializing a view for a streaming database system, said method comprising:

accessing at least one stream of events in real time as the at least one stream of events is received as output from an external system;

materializing, as the at least one stream of events is received from the external system, a view from said stream, wherein said view is dynamically defined from said stream of events captured from said external system;

producing a plurality of view snapshots from said materialized view, each view snapshot corresponding to a complete representation of an individual event within said materialized view; and

using said view snapshots to generate an initialized view that incorporates new events of said stream.